Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
	)	
Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations	)	IB Docket No. 18-315

REPLY COMMENTS OF THE MVDDS 5G COALITION

The MVDDS 5G Coalition (the "Coalition") submits these reply comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM")[1] to allow communication links between Earth Stations in Motion ("ESIMs") and non-geostationary orbit ("NGSO") satellites in certain bands.[2] The Coalition includes a cross-section of Multichannel Video Distribution and Data Service ("MVDDS") and Direct Broadcast Satellite ("DBS") licensees holding authorizations in the 12.2-12.7 GHz band ("12 GHz Band"). The Coalition appreciates the Commission's preliminary decision in the NPRM to exclude the 12 GHz Band from the list of bands in which NGSOs may communicate with ESIMs.[3] That decision should stand. Ensuring that the 12 GHz Band remains free of NGSO/ESIM communications would protect in-band terrestrial services and preserve the possibility of future two-way mobile 5G services, the latter

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[1] *Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations*, Notice of Proposed Rulemaking, IB Dkt No. 18-315, FCC 18-160 (rel. Nov. 16, 2018) ("NPRM").

[2] The Coalition's members are the following MVDDS license holders: Cass Cable TV, Inc., DISH Network L.L.C. ("DISH"), GO LONG WIRELESS, LTD., MDS Operations, Inc., MVD Number 53 Partners, Satellite Receivers, Ltd., SOUTH.COM LLC, Story Communications, LLC, and Vision Broadband, LLC. The Coalition therefore is a party-in-interest under Section 309(d)(1) of the Communications Act of 1934, as amended. *See* 47 U.S.C. § 309(d)(1).

[3] *See* NPRM ¶¶ 9-10.

of which is the subject of a pending Petition for Rulemaking before the Commission.[4] Allowing NGSO/ESIM links in the 12 GHz Band, by contrast, would inflict significant costs and provide few countervailing benefits. In particular, NGSO/ESIM links would pose intractable coordination challenges in the 12 GHz Band.

I. THE COMMISSION SHOULD REJECT THE SUGGESTION TO ALLOW ESIMs IN THE 12 GHz BAND

Although the NPRM did not propose allowing NGSO/ESIM communications in the 12 GHz Band, and virtually no commenter supports doing so, OneWeb asserts that "there is no compelling reason to preclude mobile terminals … from extending the benefits of this newly provided NGSO connectivity to the 12 GHz band."[5] There are, however, numerous reasons to avoid allowing NGSO/ESIM links in the 12 GHz Band. First and foremost, MVDDS is a co-primary service in the 12 GHz Band, and these terrestrial services would prove difficult to deploy if they needed to coordinate around roaming NGSO/ESIM connections. The 12 GHz Band framework necessarily assumes that NGSO constellations would be communicating with fixed—not mobile—earth station terminals.

ESIMs, by contrast, are quintessentially mobile earth stations around which authorized services cannot readily design, plan, or coordinate. Allowing NGSO/ESIM communications in the 12 GHz Band would introduce uncertainty and frustrate investment by terrestrial operators, who could reduce or curtail future deployments to mitigate the risk associated with expansive new sources of interference. Unsurprisingly, then, the Commission's proposal in the NPRM is

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[4] *See* Petition of MVDDS 5G Coalition for Rulemaking, RM-11768 (filed Apr. 26, 2016).

[5] Comments of WorldVu Satellites Limited, IB Docket No. 18-315, at 4 (filed Feb. 11, 2019) ("OneWeb Comments").

largely limited to frequency bands in which there are no allocations to terrestrial services.[6] That logic should extend to the 12 GHz Band.

II. ALLOWING ESIMs IN THE 12 GHz BAND WOULD BE SHORTSIGHTED IN LIGHT OF BROADER UNITED STATES EFFORTS TO LEAD THE WORLD IN 5G

Beyond existing services, there is a pending Petition for Rulemaking before the Commission to release an additional 500 megahertz of spectrum in the 12 GHz Band for 5G use. Compared to other bands, the 12 GHz Band is one of the rare candidate bands that meet the Commission's criteria for 5G. The band consists of 500 megahertz of contiguous spectrum that the Commission can readily repurpose without causing disruption to DBS or other geostationary satellite operations. And the propagation advantages of the 12 GHz Band relative to lower frequency bands make it ideal for global harmonization by equipment manufacturers and international regulators. For these reasons, the Coalition's 2016 proposal to enable two-way mobile 5G services in the 12 GHz Band has drawn widespread support in the record.[7] Allowing NGSO/ESIM links would prejudice the pending Petition for Rulemaking and imperil 5G services

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[6] *See* NPRM ¶¶ 9-11 (noting that 11.7-12.2 GHz; 14.0-14.5 GHz; 18.3-18.6 GHz; 19.7-20.2 GHz; 28.35-28.6 GHz; and 29.5-30.0 GHz have no terrestrial allocations).

[7] *See, e.g.*, Reply Comments of the Computer & Communications Industry Association, GN Docket No. 17-183, at 4-5 (Nov. 15, 2017) (noting that the "[12 GHz] band has many characteristics that would make it suitable for two-way mobile communications and help carriers meet ever increasing demands for broadband traffic" and urging the Commission to "include the 12.2-12.7 GHz band in an NPRM based on comments from this NOI."); Reply Comments of T-Mobile USA, Inc., GN Docket No. 17-183, at 22 (Nov. 15, 2017) (asking the Commission to examine the 12 GHz band, among others, for "potential wireless mobile broadband use" and encouraging the Commission to "use this proceeding to further develop the record regarding the potential use of those bands for wireless mobile operations."); Comments of Competitive Carriers Association, RM-11768, at 9 (June 8, 2016) (noting that the 12 GHz band "presents an excellent opportunity to make spectrum available to support 5G mobile broadband technologies."); Letter from Senators Cory Gardner and Michael Bennet to Chairman Ajit Pai (Dec. 7, 2017) (highlighting the importance of deploying 5G service and explaining that "the Commission has an opportunity to build on their 5G efforts by considering the benefits of 5G mobile broadband use in the spectrum between 12.2- 12.7 GHz.").

in the band. Given the 12 GHz Band could play a potentially significant role in the United States' global leadership in 5G, the Commission would be shortsighted to permit ESIMs in the band.

III. IN LIGHT OF AMPLE ALTERNATIVES, THERE IS NO JUSTIFICATION FOR ALLOWING ESIMs IN THE 12 GHz BAND

There is no need for the Commission to sacrifice the 12 GHz Band's substantial 5G potential, because there is no demonstrable need to allow NGSO/ESIM links in the 12 GHz Band in the first place. Under the NPRM, NGSO FSS operators will have ample alternative bands on which to communicate with ESIMs, including: (i) 10.7-11.7 GHz; (ii) 11.7-12.2 GHz; (iii) 14.0-14.5 GHz for service uplinks; (iv) 17.8-18.3 GHz; (v) 18.3-18.6 GHz; (vi) 18.8-19.3 GHz; (vii) 19.3-19.4 GHz; (viii) 19.6-19.7 GHz; (ix) 19.7-20.2 GHz; (x) 28.35-28.6 GHz; (xi) 28.6-29.1 GHz; (xii) 29.5-30.0 GHz. OneWeb has failed to demonstrate why it needs the 12 GHz Band when numerous other bands will be available for ESIM communications.

IV. CONCLUSION

OneWeb has advanced no argument justifying foreclosing terrestrial 5G services in the 12 GHz Band, especially for two-way 5G uses, when it has so many other spectrum options available to it. In addition, the FCC has already found that OneWeb's request includes "several additional frequency bands, such that even if NGSO FSS systems were precluded entirely from the 12.2-12.7 GHz band, OneWeb would still retain a measure of flexibility to provide its proposed services."[8] For these reasons, the Coalition urges the Commission to adhere to its

[8] *See WorldVu Satellites Limited Petition for a Declaratory Ruling Granting Access to the U.S. Market for the OneWeb NGSO FSS System*, Order and Declaratory Ruling, 32 FCC Rcd 5366 ¶ 6 (2017).

preliminary decision in the NPRM to exclude the 12 GHz Band from the list of bands in which NGSOs may communicate with ESIMs.

Respectfully submitted,

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